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Cystic retroperitoneal inflammatory my fibroblastic tumor: A case report and review of literature

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ABSTRACT: Inflammatory my fibroblastic tumor (IMT) also known as inflammatory pseudo tumor is an uncommon tumor with controversial etiology and unpredictable biological behavior .They can be found at any anatomic site with a predilection for the lung, the genito-urinary tract and the mesentery. Retroperitoneal location has been rarely reported. This tumor is typically circumscribe, non-encapsulated and often multinodular with solid and firm cut surface. **Presentation:** we report the case of a 56 years old woman with history of abdominal pain since 2 month .Compound tomography (CT) demonstrated a cystic mass on retroperitoneal .The patient underwent surgical resection and a multicystic gray white mass which was well localized in the retro peritoneum was observed. **Discussion:** A review of the literature on IMT yielded only a few number of cystic presentation.

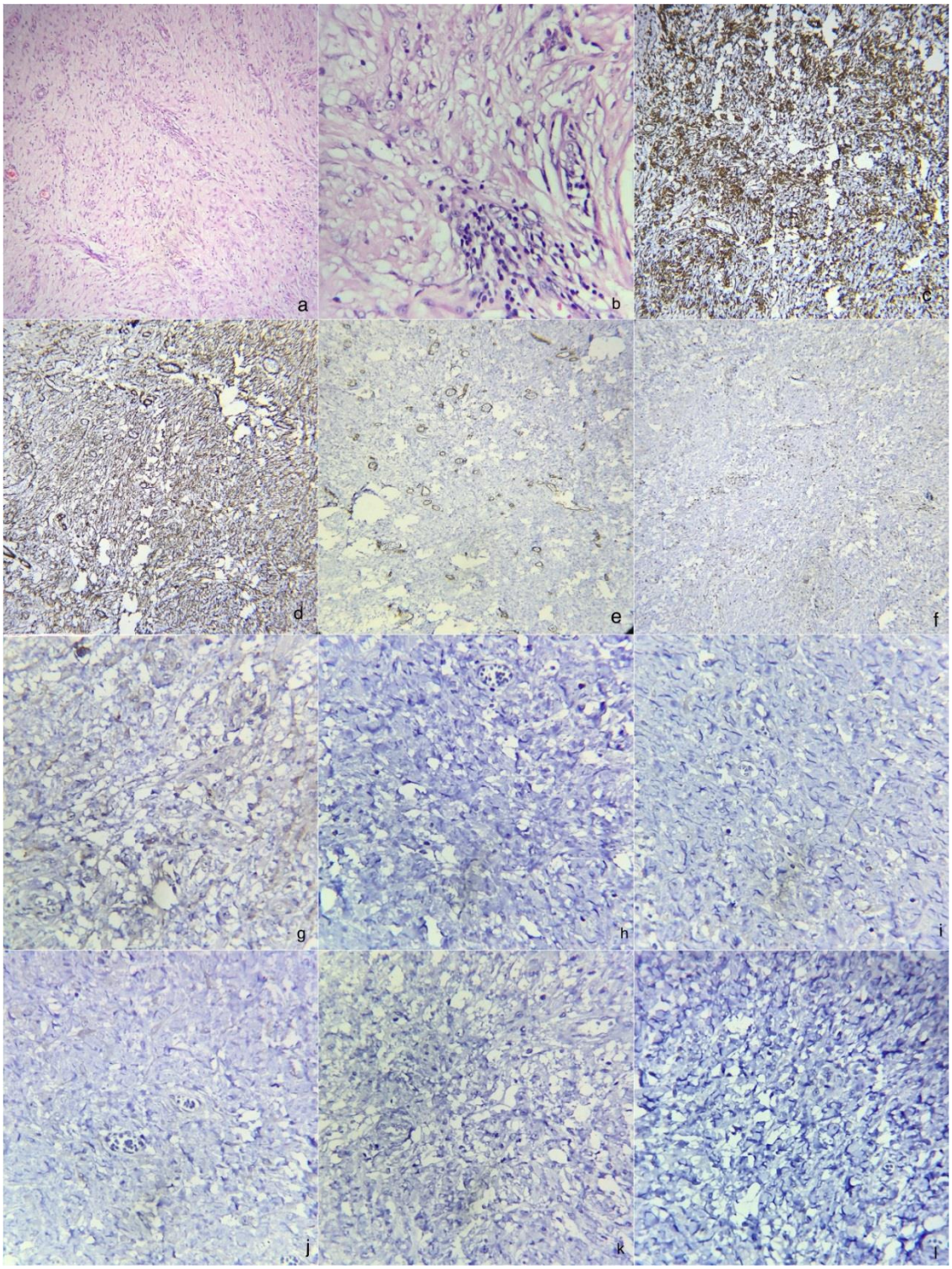
***Keywords*:** Retro peritoneum, Inflammatory, My fibroblastic, Tumor.

INTRODUCTION

Inflammatory my fibroblastic tumor (IMT) were originally termed by Bunn in 1939[1] and is now the generally accepted term for the majority of lesions formerly named inflammatory pseudo tumor , plasma cell granuloma , mental mesenteric myxoid hematoma and inflammatory fibro sarcoma .This unification was achieved on the basis of considerable morphologic and clinical overlap combined with both clinical and genetic evidence of their neoplastic nature[2].IMT may involve any organ but commonly occurs in the lung or orbit ,the most common sites of extra pulmonary inflammatory my fibroblastic tumors are the mesentery and omentum [3,4].The most accepted theory of pathogenesis supports immunological factors and a post inflammatory reparative process due to surgery, infection or trauma. The clinical presentation differs depending on the anatomical regions examined. It is often associated with fever, weight loss and anemia [5].In general, masses appear on gross examination as a nodular and solid sometimes with features of necrosis and hemorrhage [6]. The tumors are essentially cellular, fascicular, fibroblastic/my fibroblastic proliferations accompanied by a prominent infiltrate of chronic inflammatory cells, particularly plasma cells. The immune his too chemically as with other my fibroblastic lesions are generally actin positive and may also show staining for desmin and keratin [8]. Approximately 50% of inflammatory my fibroblastic tumors harbor clonal rearrangement of ALK gene at 2p23[9,10].The WHO classification places inflammatory my fibroblastic tumors in an intermediate category because of tendency for a small risk of metastases and local recurrence .[11,12,13].This findings have recently shown that chromosomal abnormalities may be suggestive of clonal origin ,not merely a reactive process and should be considered as a true neoplasm[12,13]

Case presentation: we report a 56 year old female presented with 3 month history of abdominal pain. Computed tomography (CT) demonstrated cystic mass on retro peritoneum. The macroscopic feature was multicystic cream-brown mass measuring 16×12×5cm with wall thickness about 1.8cm.The histological study reveal a spindle tumor with multicystic spaces without any lining epithelium which show fibroblastic/my fibroblastic infiltration in vascularized, myxoid, edematous and inflammatory background. Immunochemistry showed that the tumor cells were positive for

smooth muscle actin (SMA), Desmin and some tumor cells for ALK, but negative with S-100,CD34,CK,EMA,CD117[figure] . These results confirmed the diagnosis of IMT.



A)inflammatory my fibroblastic tumor(IMT). B)my fibroblasts in inflammatory background. C)smooth muscle actin(SMA). D)Desmin. E)CD34. F)Bcl2. G)ALK. H)CK. I)Ki67. J)EMA. K)S100. L)Cd117

Discussion: inflammatory my fibroblastic tumors (IMT) is a rare neoplasm of intermediate malignant potential characterized by myofibroblastic proliferation and mixed inflammatory cell infiltrate. The etiology of inflammatory my fibroblastic tumors is unknown while some author propose a neoplastic origin ,others believe that it is an immunological response to an infectious or inflammatory process .The tumor commonly occurs in lung and extra pulmonary IMTs are rare. These tumors form whorled firm white or yellow colored fleshy mass .Secondary changes include hemorrhage, necrosis, calcification and ossification. In the largest series of 84 case of extra pulmonary IMT, only four retro perineal IMT were reported and all of 84 cases were firm and solid with infiltrative border[14]. N tloko and Gounden reported 5 patient with intestinal IMT one tumor had soft myxoid consistency with cystic degeneration and four tumours had solid firm appearance on cut section[15]. Shilou Feng and Aixiang Wang reported inflammatory my fibroblastic tumor as renal cyst [16]. In our case my fibroblastic tumor appear with cystic mass which is uncommon feature

REFERENCES

1-Palaskar S, Koshti S, Maralingannavar M, Bartake A. Inflammatory myofibroblastic tumor. Contemp Clin Dent. 2011 Oct;2(4):274-7.
2-Coffin CM, Dehner LP, Meis-Kindblom JM. Inflammatory myofibroblastic tumor, inflammatory fibrosarcoma, and related lesions: an historical review with differential diagnostic considerations. Semin Diagn Pathol. 1998 May;15(2):102-10.
3-Pettinato G, Manivel JC, De Rosa N, Dehner LP. Inflammatory myofibroblastic tumor (plasma cell granuloma). Clinicopathologic study of 20 cases with immunohistochemical and ultrastructural observations. Am J Clin Pathol. 1990 Nov;94(5):538-46.
4-Difiore JW, Goldblum JR. Inflammatory myofibroblastic tumor of the small intestine. J Am Coll Surg. 2002 Apr;194(4):502-6.
5-Sahnoun L, Elezzi O, Maazoun K, et al. Ovarian inflammatory myofibroblastic tumor in children. J Pediatr Adolesc Gynecol. 2007 Dec;20(6):365-6.
6-Fenoglio-Preiser C.M, Noffsinger A.E, Stemmermann G.N, Lantz P.E, Isaacson P.G. 3rd ed. Lippincott Williams & Wilkins; Philadelphia: 2008. Inflammatory myofibroblastic tumors (inflammatory pseudotumors). Gastrointestinal pathology: an atlas and text; pp. 1242–1243.
7-Lawrence B, Perez-Atayde A, Hibbard MK et al. TPM3-ALK and TPM4-ALK oncogenes in inflammatory myofibroblastic tumors. Am J Pathol. 2000 Aug;157(2):377-84.
8-Debelenko LV, Arthur DC, Pack SD et al. Identification of CARS-ALK fusion in primary and metastatic lesions of an inflammatory myofibroblastic tumor. Lab Invest. 2003 Sep;83(9):1255-65.
9-Griffin CA, Hawkins AL, Dvorak C et al. Recurrent involvement of 2p23 in inflammatory myofibroblastic tumors. Cancer Res. 1999 Jun 15;59(12):2776-80.
10-Freeman A, Geddes N, Munson P, Joseph J, Ramani P, Sandison A. Anaplastic lymphoma kinase (ALK 1) staining and molecular analysis in inflammatory myofibroblastic tumours of the bladder: a preliminary clinicopathological study of nine cases and review of the literature. Mod Pathol. 2004;17(July (7)):765–771.
11-Oz Puyan F, Bilgi S, Unlu E et al. Inflammatory pseudotumor of the spleen with EBV positivity: report of a case. Eur J Haematol. 2004 Apr;72(4):285-91.
12-Coffin CM, Fletcher JA. Inflammatory myofibroblastic tumour. In: Fletcher CD, Unni KK, Mertens F. editors. World health organization of classification of tumors: pathology and genetics of tumors of soft tissue and bone. Lyon: IARC Press, 2002: 91-3.
13-Kovach SJ, Fischer AC, Katzman PJ, et al . Inflammatory myofibroblastic tumors.J Surg Oncol. 2006 Oct 1;94(5):385-91.
14-Coffin CM, Watterson J, Priest JR, Dehner LP. Extrapulmonary inflammatory myofibroblastic tumor (inflammatory pseudotumor). A clinicopathologic and immunohistochemical study of 84 cases. Am J Surg Pathol. 1995 Aug;19(8):859-72.
15-Ntloko S, Gounden A, Naidoo M et al. Intestinal inflammatory myofibroblastic tumour. S Afr J Surg. 2011 Nov 30;49(4):190-3.
16-*Shilou Feng*, Aixiang Wang, Ruishan Zhang,et al. A renal inflammatory myofibroblastic. tumor similar to nephrapostasis. Oncol Lett. 2015 Jul; 10(1): 518–522.